

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027364**Date Inspected:** 27-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** On Site**CWI Name:** Sal Marino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

OBG East Line Segment 12E/13E -A- LS-4:

This QA Inspector randomly observed ABF welder Jeremy Dolman (Welder ID 5042) performing the partial-joint penetration (PJP) T / Corner-joint groove weld operation connecting the deck stiffener flange (DSF) plates to I-Rib LS-4 per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the PJP groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1162-4 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The PJP groove weld operation was still in-process on this date and the workmanship appeared to be in general compliance with the contract specifications.

OBG East Line Segment 13E/14E -A- LS-5:

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This QA Inspector randomly observed ABF welder Richard Garcia (Welder ID 5892) performing the partial-joint penetration (PJP) T / corner-joint groove weld operation connecting the deck stiffener flange (DSF) plates to I-Rib LS-5 per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the PJP groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1162-4 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The PJP weld operation was completed on this date and afterwards a Post Heat Treatment (PHT) was performed using electric Proheat 35. The PJP weld operation and the PHT operation on this date appeared to be in general compliance with the contract specifications.

This Caltrans OSM Quality Assurance (QA) Inspector Art Peterson performed a review and inspection of punchlist items from OBG shipments made from ABF's fabricator Zhenhua Port Machinery Company (ZPMC) regarding OBG Segments 1 ~ 14 (East and West). The following list of Items observed were:

Punch List Item No. 375: Lift 9 : Segment 9DW and Segment 9DE: Discipline: Outstanding: Location: CB-12
Description: The Contractor to weld (2) 150 X 150 X 12 mm sole plates on DP at PP80 + 4650 and PP81 +350.

Reference: Bridge Plan Plumbing Pipe Supports Detail 10, Shop Drawings D-7a.

Status: Complete - Comment: The Contractor fillet welded the (2) 150 X 150 X 12 mm sole plates on DP at PP80 + 4650 and PP81 +350.

This QA Inspector performed magnetic-particle test (MT) verification inspection on the fillet welds of the (2) sole plates and the results appeared to be in general compliance with the contract specifications.

Punch List Item No. 376: Lift 9: Discipline: Outstanding: Location: CB-12

Description: The Contractor to fillet weld (1) 305 X 305 X 19 mm and (2) 355 X 254 X 25 mm sole plates on top of crossbeam at PP81.

Reference: Bridge Plan Plumbing Pipe Supports Detail 10, Shop Drawings D-7a.

Status: Complete - Comment: The Contractor fillet welded the (1) 305 X 305 X 19 mm and (2) 355 X 254 X 25 mm sole plates on top of crossbeam at PP81. This QA Inspector performed magnetic-particle test (MT) verification inspection on the fillet welds of the (3) sole plates and the results appeared to be in general compliance with the contract specifications.

Punch List Item No. CT 104 and CT 113:

Description: The METS QA Inspection personnel generated Incident Report (IR) 104 and 113 for the Contractor performing critical weld repairs without prior Engineers approval.

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Reference: Incident Report #104 - Dated 11/21/11 - Lifting Lug Hole #4 @ 14W/PP128/W4.

Reference: Incident Report #113 - Dated 1/25/12 - OBG 12W - 13W - D2.

Status: In-complete - Comment: ABF/JV to submit the RWR and weld soundness records for the above mentioned IR's and this QA Inspector verified that both QC and QA have performed the required NDT at these locations.



Summary of Conversations:

Only general conversations between this QA and QC on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Peterson, Art

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer